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EXAMINER	
DANIELSEN, NATHAN ANDREW	
ART UNIT	PAPER NUMBER
2627	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	12/20/2006	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/643,899	TAKEUCHI, SHUICHI	
	Examiner	Art Unit	
	Nathan Danielsen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-15,17-19,21 and 22* is/are rejected.

7)☒ Claim(s) *5,16 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-22 are pending. Claims 21 and 22 were added in Applicant's amendment filed 01 November 2006.

Claim Objections

2. Claims 3, 14, and 18 are objected to because of the following informalities: the phrase "substantially ... only" should be changed to --mainly-- so as to be consistent with Applicant's detailed description. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimozono (US Patent 6,556,534), in view of Katayama (US Patent Application Publication 2002/0181353).

Regarding claim 1, Shimozono discloses an optical system for an optical disc drive, comprising:

a light source that emits first and second light beams (figures 4 and 5), said first and second light beams utilized for recording and/or reproducing data to/from first and second optical discs, respectively, the second optical disc having a thicker protective layer and lower recording density than the first optical disc (col. 1, lines 56-62, where a CD is known to have a protective layer of 1.2 mm and a DVD is known to have a protective layer of 0.6 mm as also taught by Nishiwaki et al (US Patent Application Publication 2003/072246; hereinafter Nishiwaki) in ¶s 4 and 5);

an objective lens provided with a diffraction structure, said diffraction structure being designed to focus said first light beam on a recording layer of the first optical disc and said second light beam on a recording layer of the second optical disc (figures 1, 4, and 5); and

a collimator lens disposed between said light source and said objective lens to adjust diverging/converging angle of said first and second light beams entering said objective lens (figure 4 where the angle of the light entering the collimator lens is different than the angle of the light leaving the lens).

However, Shimozono fails to disclose:

wherein change in spherical aberration of said first light beam caused by wavelength deviation from a design wavelength due to individual specificity of said light source is corrected by adjusting the diverging/converging angle of said first light beam emerging from said collimator lens.

In the same field of endeavor, Katayama discloses:

wherein change in spherical aberration of said first light beam caused by wavelength deviation from a design wavelength due to individual specificity of said light source is corrected by adjusting the diverging/converging angle of said first light beam emerging from said collimator lens (¶ 154).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have moved the collimator lens of Shimozono to correct spherical aberration, as taught by Katayama, for the purpose of detecting the deviation of the thickness of the substrate of an optical recording medium (¶ 21).

Regarding claim 6, Shimozono, in view of Katayama, discloses everything claimed, as applied to claim 1. Additionally, Shimozono discloses where said light source includes first and second light emitting elements for generating said first and second light beams, respectively, said first and second light emitting elements being integrally formed (figures 4 and 5).

Regarding claim 7, Shimozono, in view of Katayama, discloses everything claimed, as applied to claim 1. However, Shimozono fails to discloses where the diverging/converging angle of said first light

beam is adjusted so as to minimize spherical aberration of said first light converged onto the recording layer of the first optical disc.

In the same field of endeavor, Katayama discloses where the diverging/converging angle of said first light beam is adjusted so as to minimize spherical aberration of said first light converged onto the recording layer of the first optical disc (¶ 154).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the position of the collimator lens of Shimozono, as taught by Katayama, for the purpose of detecting the deviation of the thickness of the substrate of an optical recording medium (¶ 21).

Regarding claim 8, Shimozono, in view of Katayama, discloses everything claimed, as applied to claim 1. However, Shimozono fails to disclose where the collimator lens has an optimum position for the first light beam and a different optimum position for the second light beam.

In the same field of endeavor, Katayama disclose where said collimator lens is located between first and second optimum positions, the spherical aberration of said first light beam converged onto the recording layer of the first optical disc being minimized when said collimator lens is located at said first optimum position, the spherical aberration of said second light beam converged onto the recording layer of the second optical disc being minimized when said collimator lens is located at said second optimum position (inherent in a device for compensating for variations in the substrate thickness of an optical disc (¶ 154)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have adjusted the position of the collimator lens of Shimozono to optimum positions, as taught by Katayama, for the purpose of detecting and correcting the deviation of the thickness of the substrate of an optical recording medium (¶ 21).

Regarding claim 9, Shimozono, in view of Katayama, discloses everything claimed, as applied to claim 1. Additionally, Shimozono discloses where said objective lens has a numerical aperture for said first light beam not less than 0.63 (col. 11, lines 18-47).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimozono, in view of Katayama, and further in view of Ikenaka et al (US Patent 6,728,172; hereinafter Ikenaka).

Regarding claim 2, Shimozono, in view of Katayama, discloses everything claimed, as applied to claim 1. However, Shimozono, in view of Katayama, fail to disclose how to use the temperature variations of an objective lens to compensate for the spherical aberration generated due to wavelength variations in the light source.

In the same field of endeavor, Ikenaka discloses where said diffraction structure is designed so that change in spherical aberration caused by wavelength variations of said first and second light beams due to temperature variation of said light source compensate for change in spherical aberration caused by temperature variation of said objective lens (figure 2 and col. 4, line 63 through col. 5, line 22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the temperature variations of an objective lens to compensate for the spherical aberration generated due to wavelength variations in the light source, as taught by Ikenaka, for the purpose of recording\reproducing information to\from optical information recording media having different recording densities (col. 1, lines 57-62).

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimozono, in view of Katayama, and further in view of Nishiwaki.

Regarding claim 3, Shimozono, in view of Katayama, discloses everything claimed, as applied to claim 1. However, Shimozono, in view of Katayama, fail to disclose where said diffraction structure is designed so that change in spherical aberration caused by said objective lens in accordance with wavelength variation of said first light beam is generated substantially only by third-order spherical aberration.

In the same field of endeavor, Nishiwaki discloses where said diffraction structure is designed so that change in spherical aberration caused by said objective lens in accordance with wavelength variation of said first light beam is generated substantially only by third-order spherical aberration (¶s 10 and 97).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed a diffraction structure to change the third-order spherical aberration of the light passing there through, as taught by Nishiwaki, for the purpose of realizing excellent signal recording and reproduction for optical disks with different substrate thicknesses (¶ 13).

Regarding claim 4, Shimozono, in view of Katayama, discloses everything claimed, as applied to claim 3. However, Shimozono, in view of Katayama, fail to disclose where the diffraction structure is designed so that change in fifth or higher order component of the spherical aberration caused by said objective lens in accordance with wavelength variation of said first light beam is less than one fifth of the third-order component thereof.

In the same field of endeavor, Nishiwaki discloses where the diffraction structure is designed so that change in fifth or higher order component of the spherical aberration caused by said objective lens in accordance with wavelength variation of said first light beam is less than one fifth of the third-order component thereof (¶s 10 and 97 where the initial third-order spherical aberration is approximately 160 mλ and the remaining (primarily fifth- and higher-order) spherical aberration is approximately 28 mλ, or approximately 18% of the third-order spherical aberration and approximately 15% of the total spherical aberration).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed a diffraction structure such that the fifth- and higher-order spherical aberration was less than one fifth the third-order spherical aberration, as taught by Nishiwaki, for the purpose of realizing excellent signal recording and reproduction for optical disks with different substrate thicknesses (¶ 13).

7. Claims 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimozono, in view of Arai et al (US Patent 6,671,247; hereinafter Arai), and further in view of Katayama.

Regarding claim 10, Shimozono discloses an optical system for an optical disc drive, comprising:

first and second light sources emitting first and second light beams, respectively, said first and second light beams utilized for recording and/or reproducing data to to/from first and

second optical discs, respectively, the second optical disc having a thicker protective layer and lower recording density than the first optical disc (figures 4 and 5); and

an objective lens provided with a diffraction structure, said diffraction structure being designed to focus said first laser beam on a recording layer of the first optical disc and said second laser beam on a recording layer of the second optical disc (figures 1, 4, and 5).

However, Shimozono fails to disclose where the optical system further comprises:

first and second collimator lenses disposed between said objective lens and said first and second light sources, respectively, so as to adjust diverging/converging angles of said first and second light beams entering said objective lens,

wherein said first and second collimator lenses are located so as to respectively correct change in spherical aberration of said first and second light beams caused by wavelength deviations from design wavelengths of said first and second light beams due to individual specificity of said first and second light sources.

In the same field of endeavor, Arai discloses where the optical system further comprises:

first and second collimator lenses (collimator lenses 21 and 22) disposed between said objective lens and said first and second light sources, respectively, so as to adjust diverging/converging angles of said first and second light beams entering said objective lens (figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the structure of Arai in the optical system of Shimozono, for the purpose of recording information on recording media having different thicknesses (col. 3, lines 28-35).

In the same field of endeavor, Katayama discloses where the optical system further comprises:

wherein said first and second collimator lenses (from Arai) are located so as to respectively correct change in spherical aberration of said first and second light beams caused by wavelength deviations from design wavelengths of said first and second light beams due to individual specificity of said first and second light sources (¶ 154).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have moved the collimator lens of Shimozono to correct spherical aberration, as taught by Katayama, for the purpose of detecting the deviation of the thickness of the substrate of an optical recording medium (¶ 21).

Regarding claim 11, Shimozono, in view of Arai and further in view of Katayama, discloses everything claimed, as applied to claim 10. However, Shimozono fails to disclose an optical element disposed between said objective lens and said first and second collimator lenses, said optical element combining optical paths of said first and second light beams passed through said first and second collimator lenses.

> In the same field of endeavor, Arai discloses an optical element disposed between said objective lens and said first and second collimator lenses, said optical element combining optical paths of said first and second light beams passed through said first and second collimator lenses (figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the structure of Arai in the optical system of Shimozono, for the purpose of recording information on recording media having different thicknesses (col. 3, lines 28-35).

Regarding claim 13, Shimozono, in view of Arai and Katayama, discloses everything claimed, as applied to claim 10. Additionally, Shimozono discloses where said objective lens has a numerical aperture not less than 0.63 for said first light beam (col. 11, lines 18-47).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimozono, in view of Arai and Katayama, and further in view of Ikenaka.

Regarding claim 12, Shimozono, in view of Arai and Katayama, discloses everything claimed, as applied to claim 10. However, Shimozono, in view of Arai and Katayama, fails to disclose where said diffraction structure is designed so that change in spherical aberration caused by wavelength variations of said first and second light beams due to temperature variations of said first and second light sources

compensate for change in spherical aberration caused by temperature variation of said objective lens (figure 2 and col. 4, line 63 through col. 5, line 22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the temperature variations of an objective lens to compensate for the spherical aberration generated due to wavelength variations in the light source, as taught by Ikenaka, for the purpose of recording\reproducing information to\from optical information recording media having different recording densities (col. 1, lines 57-62).

9. Claims 14, 15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimozono, in view of Nishiwaki.

Regarding claims 14 and 18, Shimozono discloses an optical system for an optical disc drive arranged to handle a first optical disc and a second optical disc by first and second light beams having different wavelengths to each other, the second optical disc having a thicker protective layer and lower recording density than the first optical disc, comprising (figures 4 and 5):

an objective lens provided with a diffraction structure (figure 1).

However, Shimozono fails to disclose where:

said diffraction structure is designed so that said first and second light beams respectively handle the first optical disc and the second optical disc and so that change in spherical aberration caused by said objective lens in accordance with wavelength variation of said first light beam is generated substantially by third-order spherical aberration only.

In the same field of endeavor, Nishiwaki disclose where:

said diffraction structure is designed so that said first and second light beams respectively handle the first optical disc and the second optical disc and so that change in spherical aberration caused by said objective lens in accordance with wavelength variation of said first light beam is generated substantially by third-order spherical aberration only (¶s 10 and 97).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed a diffraction structure to change the third-order spherical aberration of the light passing there through, as taught by Nishiwaki, for the purpose of realizing excellent signal recording and reproduction for optical disks with different substrate thicknesses (¶ 13).

Regarding claims 15 and 19, Shimozono, in view of Nishiwaki, discloses everything claimed, as applied to claims 14 and 18, respectively. However, Shimozono fails to disclose where said diffraction structure is designed so that change in fifth or higher order component of the spherical aberration caused by said objective lens in accordance with wavelength variation of said first light beam is less than one fifth of the third-order component thereof (¶s 10 and 97 where the initial third-order spherical aberration is approximately 160 mλ and the remaining (primarily fifth- and higher-order) spherical aberration is approximately 28 mλ, or approximately 18% of the third-order spherical aberration and approximately 15% of the total spherical aberration).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have designed a diffraction structure such that the fifth- and higher-order spherical aberration was less than one fifth the third-order spherical aberration, as taught by Nishiwaki, for the purpose of realizing excellent signal recording and reproduction for optical disks with different substrate thicknesses (¶ 13).

Regarding claim 17, Shimozono, in view of Katayama, discloses everything claimed, as applied to claim 14. Additionally, Shimozono discloses where said objective lens has a numerical aperture for said first light beam not less than 0.63 (col. 11, lines 18-47).

10. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimozono in view of Katayama, and further in view of Tadokoro et al (US Patent 4,965,785; hereinafter Tadokoro).

Regarding claims 21 and 22, Shimozono, in view of Katayama, discloses everything claimed, as applied to claims 7 and 8, respectively. However, Shimozono, in view of Katayama, fails to disclose where the collimator lens is fixed at a predetermined location during assembly of the optical system.

In the same field of endeavor, Tadokoro discloses where the collimator lens is fixed at a predetermined location during assembly of the optical system (col. 3, lines 57-64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have fixed the collimator lens at a predetermined location during assembly of the optical system, as taught by Tadokoro, for the purpose of holding the collimator lens in a finely adjusted position (col. 3, lines 57-64). It should be further noted that the permanent placement of the collimator lens within the optical system is inherent in all of the applied references for the purpose of obtaining a functional optical system.

Allowable Subject Matter

11. Claims 5, 16, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter:

Claims 5, 16, and 20 are allowable over the prior art of record because all references, considered as closest prior art and viewed individually or in combination, fail to teach or fairly suggest a "diffraction structure designed so that change in fifth or higher order component of the spherical aberration caused by said objective lens in accordance with wavelength variation of said first light beam is less than 0.0005 λrms/nm".

Response to Arguments

13. Applicant's arguments filed 01 November 2006 have been fully considered but they are not persuasive.

a. In response to applicant's argument that "Katayama lacks any disclosure of adjusting the diverging/converging angle of a light beam emerging from a collimator lens in order to correct for a change in spherical aberration due to wavelength deviation from a design wavelength due to individual specificity of a light source" (page 11), a recitation of the intended use of the claimed

invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

b. In response to applicant's argument that "Nishiwaki lacks any disclosure of diffraction structure designed so that change in spherical aberration caused by an objective lens in accordance with wavelength variation of a first light beam is generated substantially by third-order spherical aberration only" (page 17), the diffraction structure of Nishiwaki is designed such that primarily third-order and lower-order the spherical aberration of two beams, each having different wavelengths, is substantially eliminated (¶s 96 and 97). Further, Nishiwaki discloses where the spherical aberration that is substantially eliminated is caused by multiple factors, including disc substrate thickness errors (¶ 7) and the emission wavelength of the individual beams not being exactly equal to specific values but being approximately equal to specific values (¶s 4 and 5). Additionally the phrase "substantially only" is interpreted to mean --mainly--, as disclosed in Applicant's detailed description. Nishiwaki further discloses where the spherical aberration in the system is primarily third-order spherical aberration (¶ 7).

c. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

d. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The reason or motivation to modify a reference may suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by Applicant (MPEP § 2144).

i. With respect to claim 1, Katayama, by moving a collimator lens, corrects spherical aberration generated in an optical system, where the spherical aberration is generated due to one of a plurality of possible sources of spherical aberration in the optical system.

ii. With respect to claim 10, Arai corrects spherical aberration generated in an optical system, where the spherical aberration is generated due to one of a plurality of well-known, possible sources of spherical aberration in the optical system.

iii. With respect to claims 14 and 18, Nishiwaki discloses a diffraction structure designed so as to minimize third- and lower-ordered spherical aberration while not significantly affecting the higher-order spherical aberration, where the minimization can be considered to be a generation of an approximately equivalent spherical aberration to that generated by the remainder of the optical system except that the magnitude of the approximately equivalent spherical aberration is opposite to that of the spherical aberration generated by the remainder of the optical system.

Closing Remarks/Comments

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 8:30 AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nathan Danielsen
12/13/2006 ND

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER